Access DB# 91815

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Jim Seidleck Examiner # : 69417 Date: 4/18/03
Art Unit: 1734 Phone Number 308-2090 Serial Number: 09/059828
Mail Box and Bldg/Room Location: CP3 6005 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

_____

Earliest Priority Filing Date: _____

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

US Pat # 5,858,142

No CASM Requested

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STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher: Mellerson	NA Sequence (#)	STN
Searcher Phone #: 8-4483	AA Sequence (#)	Dialog
Searcher Location: CP3/4 3D62	Structure (#)	Questel/Orbit 2808
Date Searcher Picked Up: 4/18/03	Bibliographic	Dr.Link
Date Completed: 4/18/03	Litigation ✓	Lexis/Nexis 40.00
Searcher Prep & Review Time: 2	Fulltext	Sequence Systems
Clerical Prep Time:	Patent Family	WWW/Internet
Online Time: 8	Other	Other (specify)

PTO-1590 (8-01)

Current session 18/04/2003

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Last connection: 15/04/03 20*51*44

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Query/Command : FILE PLUSPAT

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QUESTEL      - Time in minutes :   0,69
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                              Estimated cost :    0.64 USD
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Selected file: PLUSPAT

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Last update of file: 2003/04/16 (YYYY/MM/DD) 2003-15/UP (basic update)

Search statement   1
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Query/Command : US5858142/PN

** SS 1: Results 1

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Search statement   2
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Query/Command : PRT FULL NONSTOP LEGALALL

1/1 PLUSPAT - ©QUESTEL-ORBIT - image

PN - US5858142 A 19990112 [US5858142]

TI - (A) Angular orientation control system for friction welding

PA - (A) INERTIA FRICTION WELDING INC (US)

PA0 - Inertia Friction Welding, Inc., South Bend IN [US]

IN - (A) TULLY LOWELL R (US); JOHNSON STEPHEN A (US); KONIECZNY DAVE (US) STEPHEN R (US)

AP - US98749397 19971209 [1997US-0987493]

PR - US3833297P 19970227 [1997US-P038332]
US98749397 19971209 [1997US-0987493]

IC - (A) B29C-065/06

EC - B23K-020/12C
B29C-065/06B &F4

PCL - ORIGINAL (O) : 156073500; CROSS-REFERENCE (X) : 156064000 156580000 2281145

DT - Basic

CT - US4552609; US4552612; US4584037; US4741788; US4743331; US5064485; US5108539; US5152855

STG - (A) United States patent

AB - A method of friction welding first and second parts together at an angular orientation relativ includes the steps of mounting the first part in a spindle for axial rotation and the second par rotatable holder. The spindle is then rotated and the angular orientation of the first part relati part is determined at any specific time. The holder is moved toward the spindle to bring the frictional contact with the first part at a selected one of the specific times that the angular or determined. Accordingly, due to frictional contact, the respective contacting surface of the p The speed of the rotation of the spindle is then decreased and the holder is moved toward th forcibly urge the first and second parts together at the contacting surface. Rotation of the spi a specific determined angular orientation of the first part relative to the second part while co forcibly urge the parts together to allow cooling and fused solidification of the contacting su

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1/1 LGST - ©LEGSTAT

PN - US 5858142 [US5858142]

AP - US 987493/97 19971209 [1997US-0987493]

DT - US-P

ACT - 19971209 US/AE-A
APPLICATION DATA (PATENT)
US 987493/97 19971209 [1997US-0987493]

19971209 US/AS02
ASSIGNMENT OF ASSIGNOR'S INTEREST
INERTIA FRICTION WELDING, INC. P.O. BOX 1108 SOUTH BEND, INDIANA 46624
LOWELL R. : 19971205; JOHNSON, STEPHEN A. : 19971205; KONIECZNY, DAVE : 1
STEPHEN R. : 19971205

19990112 US/A
PATENT

UP - 2000-08

1/1 CRXX - ©CLAIMS/RRX

PN - 5,858,142 A 19990112 [US5858142]

PA - Inertia Friction Welding Inc

ACT - 20020730 REASSIGNED
MERGER

Assignor: INERTIA FRICTION WELDING, INC. DATE SIGNED: 12/26/2001

Assignee: S.S.D. CONTROL TECHNOLOGY, INC. P.O. BOX 4189 1801 SOUTH MAIN BEND INDIANA 46634

Reel 013128/Frame 0571

Contact: MARSHALL, GERSTEIN & BORUN DAVID C. READ 233 S. WACKER DRIV CHICAGO, IL 60606-6357

Query/Command : FILE INPADOC

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PLUSPAT       - Time in minutes :   0,47
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                              Estimated cost :    1.09 USD
Records displayed and billed   :      1
                              Estimated cost :    1.25 USD
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Estimated total session cost                :    2.98 USD

LGST          - Time in minutes :   0,06
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Records displayed and billed   :      1
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Cost estimated for the last database search :    0.67 USD
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CRXX          - Time in minutes :   0,07
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Records displayed and billed   :      1
                              Estimated cost :    5.30 USD
Cost estimated for the last database search :    5.42 USD
Estimated total session cost                :    9.07 USD

LITA          - Time in minutes :   0,02
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Search statement 1

Query/Command : FAM US5858142/PN

1 Patent Groups

** SS 1: Results 1

Search statement 2

Query/Command : FAMSTATE NONSTOP

1/1 INPADOC - ©INPADOC

PN - US 5858142 A 19990112 [US5858142]
TI - ANGULAR ORIENTATION CONTROL SYSTEM FOR FRICTION WELDING
IN - TULLY LOWELL R [US]; JOHNSON STEPHEN A [US]; KONIECZNY DAVE [US]; ES [US]
PA - INERTIA FRICTION WELDING INC [US]
AP - US 987493/97-A 19971209 [1997US-0987493]
PR - US 987493/97-A 19971209 [1997US-0987493]
US 38332/97-P 19970227 [1997US-P038332]
IC - B29C-065/06

1/1 LEGALI - ©LEGSTAT

PN - US 5858142 [US5858142]
AP - US 987493/97 19971209 [1997US-0987493]
DT - US-P
ACTE - 19971209 US/AE-A
APPLICATION DATA (PATENT)
US 987493/97 19971209 [1997US-0987493]

19971209 US/AS02
ASSIGNMENT OF ASSIGNOR'S INTEREST
INERTIA FRICTION WELDING, INC. P.O. BOX 1108 SOUTH BEND, INDIANA 46624
LOWELL R. : 19971205; JOHNSON, STEPHEN A. : 19971205; KONIECZNY, DAVE : 1
STEPHEN R. : 19971205

19990112 US/A
PATENT
UP - 2000-08

PATNO IS 5858142

DATE: APRIL 18, 2003
LIBRARY: PATENT
FILE: ALL

Your search request is:
PATNO IS 5858142

Number of PATENTS found with your search request through:
LEVEL 1... 1

Your search request has found 1 PATENT through Level 1.
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LEVEL 1 - 1 PATENT

1. 5858142 , January 12, 1999 , Angular orientation control system for friction welding, Tully, Lowell R., Elkhart, IN; Johnson, Stephen A., South Bend, IN; Konieczny, Dave, Union Mills, IN; Estes, Stephen R., South Bend, IN, 987493 (08), Inertia Friction Welding, Inc., South Bend, IN, December 9, 1997 - ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS)., INERTIA FRICTION WELDING, INC. P.O. BOX 1108 SOUTH BEND INDIANA 46624, Reel and Frame Number: 009222/0508

CORE TERMS: rem, spindle, workpiece, weld, rotation, phase, computer, orientation, friction, angular ...

LEVEL 1 - 1 OF 1 PATENT

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

5858142

<=1> GET 1st DRAWING SHEET OF 7

January 12, 1999

Angular orientation control system for friction welding

APPL-NO: 987493 (08)

FILED-DATE: December 9, 1997

GRANTED-DATE: January 12, 1999

CORE TERMS: rem, spindle, workpiece, weld, rotation, phase, computer, orientation, friction, angular ...

ENGLISH-ABST:

A method of friction welding first and second parts together at an angular orientation relative to each other includes the steps of mounting the first part in a spindle for axial rotation and the second part in a non-rotatable holder. The spindle is then rotated and the angular orientation of the first part relative to the second part is determined at any specific time. The holder is moved toward the spindle to bring the second part into frictional contact with the first part at a selected one of the specific times that the angular orientation is determined. Accordingly, due to frictional contact, the respective contacting surface of the parts are melted. The speed of the rotation of the spindle is then decreased and the holder is moved toward the spindle to forcibly urge the first and second parts together at the contacting surface. Rotation of the spindle is stopped at a specific determined angular orientation of the first part relative to the second part while continuing to forcibly urge the parts together to allow cooling and fused solidification of the contacting surfaces.

5858142 OR 5,858,142

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